Model 8832 Data System Controller

Model 8832 Data System Controller delivers unmatched flexibility and performance in data acquisition and reporting.

Our 'next generation' design provides more processing power - increased program, configuration and long-term data storage - designed to meet your growing data system and regulatory requirements.

The advanced Model 8832 Data System Controller is designed around a high performance, 32-bit Motorola PowerPC processor running at 50MHz. Standard data storage space has been increased from 40,000 to over 100,000 data points. The configuration space has been more than tripled, allowing up to 99 channels of input or calculated values. The increased speed allows a new value to be calculated each second on any of the channels. An optional 2 MB memory card can expand long-term data storage to over 300,000 data points.

Additional capabilities of the Model 8832 include an optional color LCD display to facilitate display of alarms. A VGA video output port allows an external monitor to be connected to the Model 8832 to provide a 640x480 color viewing display. An Ethernet communications port and high speed serial communication ports not only allow for faster configuration downloads and data polling, but also enable new software versions to be loaded without an EPROM change.

Model 8832 Communications Panel

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Model 8832 Data System Controller

Features

CPU	Motorola MPC860 PowerQUICC
Data Bus	32 bits
Speed	50MHz
EPROM	512KB – boot functions
Flash	4MB – code storage
DRAM	32MB – operational data & code execution
SRAM	2048KB – configuration & long-term data
EEPROM	8192 Bytes – system settings
PCMCIA Slot	Internal – extended configuration & long-term data storage (2 Mb initially)
Ethernet Port	TCP/IP; 10 Mbps - code download, configuration download, data polling, MODBUS TCP
Serial Port 0	Optically isolated RS-232 or RS-485; 300 - 115.2k baud
Serial Port 1	RS-232 or RS-485; 300 to 115.2k baud
Serial Port 2	Optional RS-232; 300 to 115.2k baud
Serial Port 3	Optional RS-232; 300 to 38.4k baud
LCD	16 colors; 640x240
VGA Port	Optional; 16 colors; 640x480
Printer Port	Optional; Centronics general purpose
Channels	99 total (75 available as math channels)
Calibrations	32 total w/ 100 phases & 100 data points
Alarms	64 total (average + calibration)
Digital Events	32 total (timed + digitally-triggered)

Specifications

Dimensions	17.00w x 5.25h x 14.00d inches (43.2w x 13.3h x 35.6d cm)
Weight	Less than 15 pounds (6.8 kg)
Mounting	19-inch rack
Power	Universal 110/220VAC; 50/60 Hz; less than 60 Watts
Battery Backup	90 mA-hour rechargeable lithium (30 days minimum backup time)
Temperature	0°C to 40°C operating
Humidity	0 to 95% (noncondensating)
Analog Inputs	Voltage or 4-20mA current loop available, differential with programmable gain amplifier
Resolution	14-bit
Voltage Ranges	+/- 100mV, +/- 1V, +/- 5V, +/- 10V full scale
Input Impedance	>10 Megaohms
Front-To-Back Accuracy	+/- 0.05% full scale at room temperature (20°C) +/- 0.1% full scale over full temp range
Contact Closure Digital Inputs	Detects contact (relay) closures or voltage-to-ground transitions (to 24V); optional software debounce
Isolated Digital Inputs	Detects open-to-voltage transitions (24V to 120V, AC or DC); optional software debounce available
Scan Rate	32 channels per second
Digital Outputs	Latching-coil relays; rated load: 5A @ 250VAC, 5A @ 30VDC
Analog Outputs	4-20mA current loop outputs; 12-bit resolution

CPU	Motorola MPC860 PowerQUICC, 50MHz
EPROM	512KB (boot program code)
SRAM	2MB (configuration & long-term data storage)
DRAM	32MB (operational data & code execution)
Flash	4MB (program code storage)
EEPROM	8KB (system settings)
PCMCIA	One internal slot; supports 2MB optional expansion card (extended configuration & long-term data storage)
Serial I/O Ports	One isolated RS-232C or RS-485 port, one non-isolated RS-232C or RS-485 port and, up to two optional RS-232C ports
Baud Rates 300 baud selectable	300 baud to 115.2k baud on first three ports; to 38.4k baud on fourth port; software
Data Format 7-bit word,	8-bit word, even, odd or no parity, full duplex; even or odd parity, full duplex
Printer Port	Centronics port; DB-25 connector (optional)
LCD	16 colors; 640 x 240
VGA Output Port	16 colors; 640 x 480 (optional)
Ethernet Port	TCP/IP; 10 Mbps code download, configuration download, data polling, MODBUS TCP, MODBUS Master

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